BUILDING CODE STUDY DATA

DESIGN PHASE: ~ SD ~ DD ~ CD DATE: _____

1) PROJECT: _____ PROJECT NO.: _____

FACILITY: _____

_____

2) APPLICABLE CODES:

A)	**Building Code:**	**IBC - 2012** **IRC - 2012** **IEBC - 2009**
B)	**Fire Code:**	**NFPA - 101 - 2012 (Life Safety Code)** **NFPA - 1 - 2012 (Fire Code)** **NFPA - 13 - 2010 (Sprinkler Code)**
C)	**Mechanical Code:**	**IMC - 2012**
D)	**Plumbing Code:**	**National Standard Plumbing Code - 2006 w/2007 Supplement**
E)	**Electric Code:**	**NEC - 2011**
F)	**Energy Standard**	**ASHRAE 90.1 (Latest Edition - 2010)**
G)	**Elevator and Escalator Safety Code**	**ANSI/ASME A17.1 2009**
H)	**Accessibility Code**	**MAC (COMAR 05.02.02 & 2010 ADA Standards)**
I)	**Energy Conservation Code**	**IECC - 2012**

3) BUILDING USE, CONSTRUCTION CLASSIFICATIONS AND HEIGHT

	IBC (2012)	**NFPA (2012)**
Use Group _ _ _ _ _ _ _ _ _ _ _ _ _ (Sect. 302) :	_____	_____
Special Use and Occupancy _ _ (Chapter 4) :	_____	_____
Proposed Type of Construction (Table 503) :	_____	_____
Number of Stories _ _ _ _ _ _ _ (Table 503) :	_____	_____
Building Height Allowable _ _ (Table 503) :	_____	_____
Actual Building Height _ _ _ _ _ _ _ _ _ _ _ :	_____	_____
Additional Credit for		
Fully Sprinklered Building _ _ (Sec. 504.2) :	_____	_____
Height Increase _ _ _ _ _ _ _ _ (Sec. 504.2) :	_____	_____
Building Area Increase _ _ _ _ (Sec. 506.3) :	_____	_____
Mixed Use Occupancy _ _ _ _ (Table 508.4) :	_____	_____
Incidental Use Areas _ _ _ _ _ (Table 509) :	_____	_____

4) BUILDING AREAS:

BUILDING ACTUAL GROSS AREAS :

First Floor : _____
Second Floor : _____
Third Floor : _____
Mech. Penthouse : _____
Total (GSF) : _____

MAXIMUM ALLOWABLE AREAS:

Per IBC Table 503 : _____ + _____ (Automatic Sprinkler System Increase - 504.2) + _____ (Frontage Increase – 506.2)

BUILDING AREA MODIFICATION Sec. 506 : _____ (List Total Area per Floor)

5) <u>OCCUPANCY LOADS</u>:

USE	(IBC) (Table 1004.1.2)	LIFE SAFETY (Table - 7.3.1.2)
	_____	_____

6) <u>EGRESS WIDTH</u>:

	(IBC) (Section - 1008)	LIFE SAFETY (Table - 7.3.3.1)
Egress Width at Stairs :	_____	_____
Egress Width at Doors :	_____	_____
Egress Width at Corridors :	_____	_____

7) <u>OCCUPANCY LOADS AND EGRESS REQUIREMENTS</u>:

Location (Spaces) : _____
Area in Square Feet : _____
Maximum Floor Area
Allowance Per Occupant (Table 1004.1.2) : _____
Egress Width Required (Section 1005) : _____
Egress Width Provided (in inches) : _____
Number of Exits Required (Section 1021) : _____
Number of Exits Provided : _____

8) <u>FIRE PROTECTION SYSTEM REQUIREMENTS</u>:

	IBC	System Req. (Yes/No)	IBC 2012 Reference	NFPA 101-2012 Reference (Chapter 8)
Automatic Sprinklers	**(Sec. 903):**			
Fire Extinguishing System	**(Sec. 904):**			
Standpipe System	**(Sec. 905):**			
Portable Fire Extinguishers	**(Sec. 906):**			
Fire alarm System	**(Sec. 907):**			
Emergency Alarm System	**(Sec. 908):**			
Smoke Control System	**(Sec. 909):**			
Smoke and Heat Vents	**(Sec. 910):**			
Fire Command Center	**(Sec. 911):**			
Fire Dept. Connection	**(Sec. 912):**			
Fire Pumps	**(Sec. 913):**			

9) MAXIMUM DEAD END DISTANCE:

Use Group :
IBC - 2012 (Table 1018.4) :
NFPA - 2012 :

10) INTERIOR FINISH REQUIREMENTS:

	Class	Flame Spread	Smoke Development
IBC - 2012 (Table - 803.9) :			
NFPA - 2012 (Chapter 10) :			

11) MAXIMUM TRAVEL DISTANCE TO EXIT:

Actual : Show on Life Safety Plan

	IBC - 2012 (Table - 1016.2)	NFPA - 2012 (7.6.1)
Allowable :		

12) MINIMUM CORRIDOR WIDTH REQUIREMENTS:

Location	Width	IBC - Reference (Table 1018.2)	NFPA - Reference

13) PANIC HARDWARE:

Location	Required	IBC - Reference (1008.1.10)	NFPA – 101 2012 Reference

14) STAIR DATA:

NFPA - 101 2012 (Table 7.2.8.4.1)

Stair Width (Section 1009) : _____
Capacity : _____
Rated Enclosure (Section 1022.2) : _____

15) AREA OF REFUGE: (Section 1007.6) **Yes** _____ **No** _____
(NFPA SEC 7.2.12.3.5.1)

16) BUILDING FIRE RATINGS:

		IBC–2012 (Table 601 - 602)	NFPA–101 2012 (Chapter - 8)
STRUCTURAL FRAME Including Columns, Girders, Trusses	:		
EXTERIOR BEARING WALL	:		
EXTERIOR NON-BEARING WALL	:		
INTERIOR BEARING WALL	:		
INTERIOR NON-BEARING WALL	:		
FLOOR CONSTRUCTION Including Supporting Beams and Joists	:		
ROOF CONSTRUCTION Including Supporting Beams and Joists	:		
FIRE WALLS - USE GROUP Fire Resistance Rating (Table 706.4) Fire Barrier Assemblies (Table 707.3.10)	:		
VERTICAL EXIT ENCLOSURES Fire Resistance Rating (Section 1022) (NFPA - 2009 Table 8.3.4.2)	:		
SHAFTS AND ELEVATOR HOIST WAYS Fire Resistance Rating (Section 712 & 713) (NFPA - 2009 Table 8.3.4.2)	:		
EXIT ACCESS CORRIDORS	:		

Protective Opening Rating (Table 1018.1)

SMOKE BARRIER Protective Opening Rating	**(Section 709)**	**:**	_____	_____
FIRE DOOR	**(Table 716.5)**	**:**	_____	_____
FIRE WINDOWS	**(Table 716.6)**	**:**	_____	_____
DRAFT STOPPING (Concealed Spaces)	**(Section 718)**	**:**	_____	_____

17) MD HIGH PERFORMANCE BUILDING ACT:

New public construction and major renovation projects of 7,500 square feet or greater shall be designed to earn a LEED Silver Certification from the U. S. Green Building Council.

18) ENERGY CODE: MARYLAND CLIMATE ZONE 4A
EXCEPT GARRETT COUNTY 5A

BUILDING ENVELOPE REQUIREMENT

	Required 'U' Value U = 1/R	Required 'R' Value R = 1/U	Provided
Roofs			
Insulation entirely above deck	**U 0.039**	**R 25 CI (Cont Insul)**	
Attic Insulation	**U 0.027**	**R 38**	
Metal Building	**U 0.035**	**R 19 + 11**	
Walls			
Mass	**U 0.104**	**R 9.5 CI (Cont Insul)**	
Metal Framed	**U 0.064**	**R 13 + R 7.5 CI**	
Metal Building	**U 0.052**	**R 13 + R 13 CI**	
Wood Framed	**U 0.064**	**R 13 + R 3.8 CI or R 20**	
Below Grade Wall	**U 0.119**	**R 7.5 CI**	
Floors			

Mass	**U 0.076**	**R 10 CI**
Joist Framing (steel or wood)	**U 0.033**	**R 30**
Slab on Grade		
Heated Slab	**F 0.65**	**R 15 for 24" below**
Unheated Slab	**F 0.54**	**R 10 for 24" below**
Doors		
Entrance Door	**U 0.77**	**R 1.29**
Roll-up	**U 0.21**	**R 4.75**
Windows		
Fixed Fenestration	**U 0.38**	**R 2.63**
Operable Fenestration	**U 0.45**	**R 2.22**
Sky Light	**U 0.50**	**R 2.0**
Curb	**U 0.20**	**R 5.0**

Minimum Roof Reflectance/Emittance

Initial Solar Reflectance	**0.70**
Initial Thermal Emittance	**0.75**